

What is claimed is

1. A system for communicating using wireless time division multiplexed communications in which time is divided into a plurality of frames and each frame is divided into N data bursts, said system comprising:

means for defining a channel as a series of bursts that occur periodically every N bursts once per frame;

means for defining a sub-channel as every M th burst of said channel; and

means for transmitting said channel and sub-channel from a first station to a second station.

2. The system of claim 1, wherein channels of different rates are realized by using multiple sub-channels of rate $1/M$.

3. The system of claim 2, wherein 0246/1357 interleaving is used.

4. The system of claim 2, wherein 0246/1357 interleaving is used with non-ideal frequency hopping transmitting because of the improved link performance provided thereby.

5. The system of claim 2, wherein 0246/1357 interleaving is used because of a lower delay to the start of a talkspurt than 0123/4567 interleaving.

6. The system of claim 2, wherein 0246/1357 interleaving is used because of larger resource pools for statistical multiplexing under half duplex constraints imposed by mobile stations provided relative to 0123/4567 interleaving.

7. The system of claim 1, wherein 0246/1357 interleaving is used.

8. The system of claim 1, wherein 0246/1357 interleaving is used with non-ideal frequency hopping transmitting because of the improved link performance provided thereby.

9. The system of claim 1, wherein 0246/1357 interleaving is used because of a lower delay to the start of a talkspurt than 0123/4567 interleaving.

10. The system of claim 1, wherein 0246/1357 interleaving is used because of larger resource pools for statistical multiplexing under half duplex constraints imposed by mobile stations provided relative to 0123/4567 interleaving.

11. A system for communicating using wireless time division multiplexed communications in which time is divided into a plurality of frames and each frame is divided into N data bursts, said system comprising:

a first multiplexer defining a channel as a series of bursts that occur periodically every N bursts once per frame;

a second multiplexer defining a sub-channel as every M th burst of said channel; and

a transmitter transmitting said channel and sub-channel from a first station to a second station.

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12. A method for communicating using wireless time division multiplexed communications in which time is divided into a plurality of frames and each frame is divided into N data bursts, said method comprising the steps of:

interleaving bursts using a 0246/1357 sequence; and

transmitting the interleaved bursts from a first station to a second station.

13. A method as set forth in claim 12 wherein said transmitting the interleaved bursts from a first station to a second station step further includes using non-ideal frequency hopping during the transmitting.

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